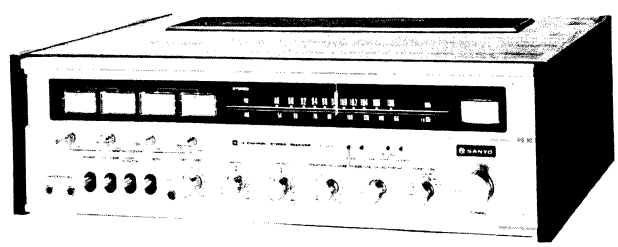
SANYO

SANYO
4 CHANNEL
STEREO RECEIVER
DCX 3300K
DCX 3300KA
SERVICE MANUAL



SPECIFICATION

GENERAL

IC	STK-023 x 2 LA1201 x 1
FET	2SK41 x 1
Transistor	2SC693 x 18 2SC537 x 8 2SC536 x 1 2SC668 x 2 2SC929 x 1 2SC930 x 1 2SA608 x 2
Diode	1S188 x 29 DS-430 x 14 DS-118 x 2 SZ-9 x 1
Power Source	AC 120V, 200, 230V
Power Consumption	150W
Dimension	APProx. Width 530mm (21-1/4") Deep 390mm (15-3/4") Hight 150mm (6")
Weight	Approx. 10.9Kg (24 lbs)

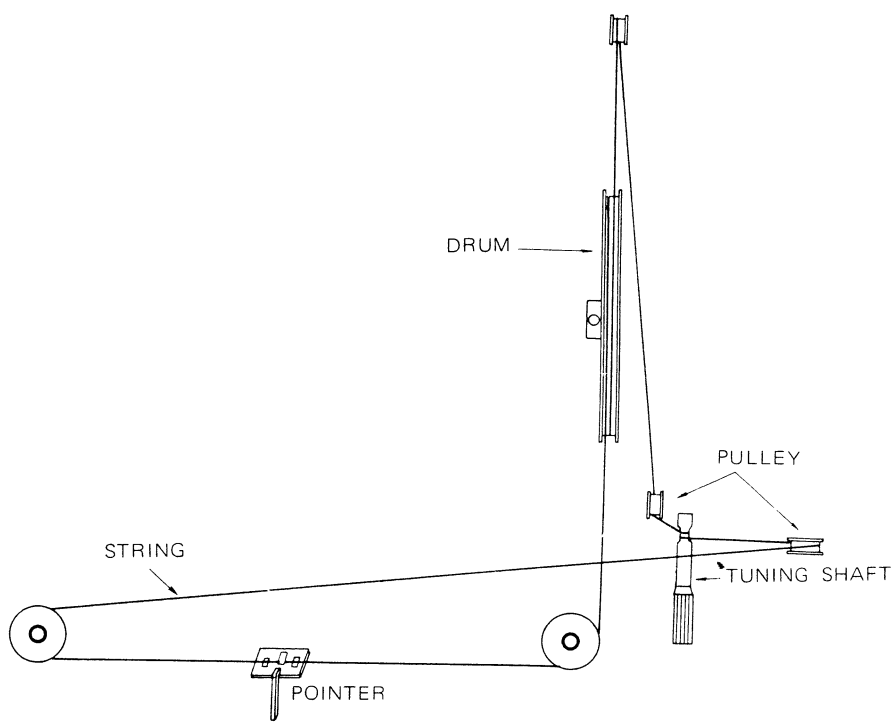
TUNER SECTION

Frequency RAnge	AM 535 – 1,605KHz FM 88 – 108MHz
Inter. Frequency	AM 455KHz FM 10.7MHz
Sensitivity	AM 300μV/m FM 20μV
FM MPX Separation	30dB (at 1,000Hz)
Signal to Noise	40dB

AUDIO SECTION

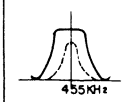
Power Output	20W (THD 10%)
Frequency Responce	80 – 12,000Hz ±3dB
Power Band Width	80 – 12,000Hz ±3dB
Input Terminal	PHONO 5mV 50KΩ AUX 120mV 100KΩ TAPE PLYBACK 300mV 100KΩ MIC -65dB 10KΩ
Output Terminal	SPEAKER 8Ω HEAD PHONE 8Ω
Tone Control	BASS ±12dB at 100Hz TREBLE ±12dB at 10KHz
Loudness Control	50Hz +12dB 10KHz +5dB

DIAL CORD STRINGING



ADJUSTMENT

AM ADJUSTMENT

Step	Adjusting circuit	Connections		SG. frequency	Position of tuning dial	Adjustment	V.T.V.M. Oscilloscope
		Input	Output				
1	IF	Connect sweep generator to VC4.	Connect oscilloscope to test point TP2.	455 KHz (400Hz 30% modulation)	Near max. capacity of VC. at position with no unrequired signal.	AM 1st 9-20940 (Yellow) 9-20950 (White) AM 2nd 9-20960 (Black)	
2	RF	Connect standard loop antenna to output terminals of SG. Place reciever 2 feet from loop antenna.	Connect V.T.V.M. to speaker terminals.	600 KHz (400Hz, 30% modulation)	600 KHz	AM ANT 9-20524 AM OSC 9-20700 (Red)	Max.
3				1400 KHz (400Hz, 30% modulation)	1400 KHz	TC4 TC5	Max.
4	Repeat adjustments.						

PREPARE

1. Variable capacitor completely closed.
2. Set the dial pointer to very left line dial scale.
3. Connect sweep generator. SG, V.T.V.M. and oscilloscope.
4. Selector switch to "AM".
5. Use a screwdriver with plastic grip for all adjustments.

FM ADJUSTMENT

Step	Adjusting circuit	Connections		SG frequency	Position of tuning dial	Adjustment	V.T.V.M. Oscilloscope
		Input	Output				
1	IF	Connect sweep generator to test point TP1 through 0.01μF	Connect oscilloscope to test point TP3.	10.7 MHz (no modulation)	Near max. capacity of VC. at position with no unrequired signal.	FM 1st 9-20890 (Violet) 9-20900 (Orange) FM 2nd 9-20910 (Gray) 9-20920 (Brown) FM 3rd 9-20930 (Pink) 9-20920 (Blue)	
2	Ratio Det.		Connect oscilloscope to test point TP4.			FM DET 9-20850 9-20860	
3	RF	Connect FM SG. to FM ANT. terminals.	Connect V.T.V.M. to speaker terminal.	90 MHz (400Hz, 30% modulation)	90 MHz	FM ANT 9-20910 FM OSC 9-20460 FM Coil 9-20260	Max.
4				106 MHz (400Hz, 30% modulation)	106 MHz	TC1 TC2 TC3	Max.
5	Repeat adjustments.						

PREPARE

1. Variable capacitor completely closed.
2. Set the dial pointer to very left line of dial scale.
3. Connect sweep generator, FM SG, V.T.V.M. and oscilloscope. FM antena input impedance is 300 ohm.
4. Selector switch to "FM"
5. Use a screwdriver with plastic grip for all adjustments.

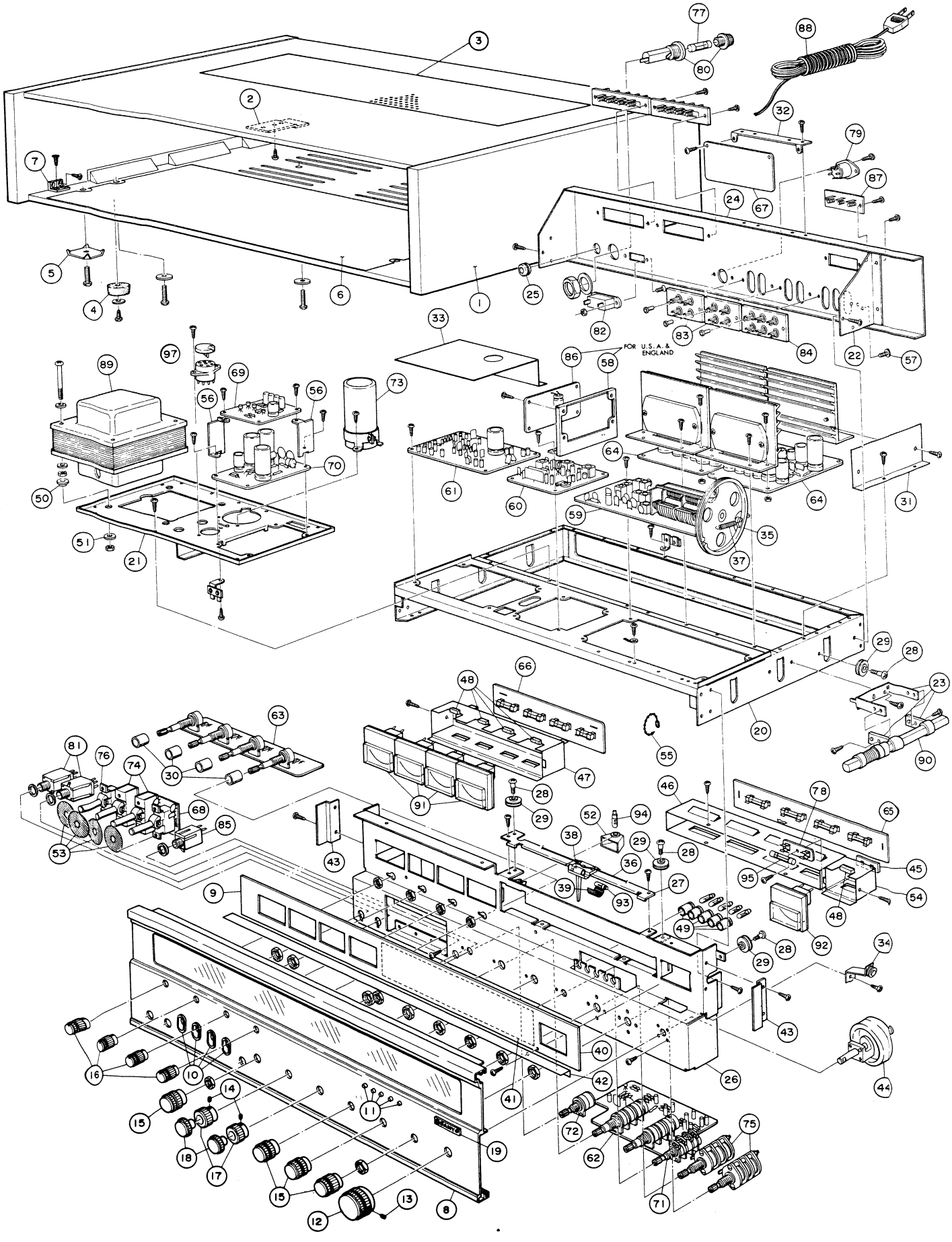
FM MPX ADJUSTMENT

Step	Adjusting circuit	Connections		Position of tuning dial	Adjustment	V.T.V.M.
		Input	Output			
1	SCA signal filter (67 KHz)	Add SCA signal to FM stereo SG. to FM ANT. terminals. FM stereo signal OFF.	Connect V.T.V.M. to emitter of TR201.	Near max. capacity of VC. at position with no unrequired signal.	67KHz 9-20140 (Red)	Min.
2	19KHz pilot signal	Connect FM stereo SG. to FM ANT terminals. 19KHz signal ON. SCA signal OFF.	Connect V.T.V.M. to test point TP8.		19KHz 9-20160 (Blue)	Max.
			Connect V.T.V.M. to test points TP7 & TP9.		19KHz 9-20150 (Green)	Max.
3	38 KHz	Connect FM stereo SG to FM ANT terminals. 19KHz signal ON. Main channel, sub channel signal ON. Add 1000Hz signal from L Ch.	Connect V.T.V.M. to test point TP8.		38KHz 9-20170 (Yellow)	Max.
4	FM stereo signal separation		Connect V.T.V.M. to R speaker terminal.		Separation control SVR B-10K ohm	Min.
5		Connect FM stereo SG to FM ANT terminals. 19KHz signal ON. Main channel, sub channel signal ON. Add 1000Hz signal from R Ch.	Connect V.T.V.M. to L speaker terminal.		38KHz 9-20170 (Yellow)	Min.
6	Repeat steps 4 ~ 5. Set at position with max. channel separation.					

PREPARE

1. Variable capacitor completely closed.
2. Connect FM stereo SG. and V.T.V.M.
3. Selector switch to "FM AUTO"
4. Use a screwdriver with plastic grip for all adjusments.

XPLODED VIEW



PARTS LIST

Ref. No.	Part No.	Description	Q'ty
PACKING			
	131 6 1139 36401	Box Corrugate Exp (DCX-3300K)	1
	131 6 1139 36403	Box Corrugate Exp (DCX-3300KA)	1
	131 6 3009 16230	Pad, Front (DCX-3300K)	1
	131 6 3009 16240	Pad, Rear (DCX-3300K)	1
	131 6 3009 17450	Pad, Left and Right (DCX-3300KA)	2
	131 6 2119 00570	Bag, Polyethylene Exp	1
	131 6 4559 10100	Manufacturing No.	1
	131 6 2719 10300	Bag Fan	1
	131 6 4119 27001	Explanetory Booklet (DCX-3300K)	1
	131 6 4119 27003	Explanetory Booklet (DCX-3300KA)	1
	4 2449 20230	Antenna FM	1
	131 6 4159 14700	Notes, Power Caution	1
CABINET			
	131 0 1101 04201	Cabinet Ass'y	1
1	131 2 1101 20801	├Cabinet	(1)
3	131 2 6201 12600	├Plate, Heat Sink	1
6	131 2 6101 16700	├Plate, Shield	1
	131 2 3101 12500	├Metal Mount (DCX-3300K)	1
2	131 2 3101 12501	├Metal Mount (DCX-3300KA)	1
		├Screw, Truss Hd. Tapping 3x8	3
4	131 2 1804 10401	├Leg, Rubber	4
		├Screw, Truss Hd. Tapping 4x12	4
		├Washer, Plain 4.2φx12φx1t	4
5	131 2 4203 15200	├Washer	4
		├Screw, Pan Hd. 4x20	7
7	131 2 3201 11600	├Angle Leinf	2
		└Screw, Truss Hd. Tapping	8
		Washer, Plain 4.2φx16φx1.6t	3
	131 2 1203 22602	Panel Control (DCX-3300K)	1
8	131 2 1203 22603	Panel Control (DCX-3300KA)	1
		Screw, Flat Hd. Tapping	3
9	131 2 1205 10800	Decoration Plate, Dial	1
10	131 2 6113 11700	Shelter, Switch Lever	4
11	131 2 1504 10900	Plate Sign Lamp 2/4CHL Selector	5
		Nut,M8, Mic, Panel	1
12	131 2 1601 22500	Knob, Tuning	1
13	131 2 4201 12400	Screw, Tuning Knob 3x8	1
15	131 2 1601 22600	Knob, Selector	4
16	131 2 1601 22700	Knob, Special Control	4
18	131 2 1601 22900	Knob, Bass, Treble	2
17	131 2 1601 22800	Knob, Bass, Treble	2
14	131 2 4201 12500	Screw, Bass, Treble 3x5	2
19	131 2 1301 13700	Badge	1
CHASSIS MECHANICAL PARTS			
20	131 2 3301 17000	Chassis	1
		Screw, Pan Hd. Tapping	17
21	131 2 3617 12100	Metal Mount Trans	1
		Screw, Pan Hd. Tapping	14
	131 2 3306 15001	Panel, Rear (DCX-3300K)	1
24	131 2 3306 15003	Panel, Rear (DCX-3300KA)	1
		Screw, Button Hd. Tapping 3x8	6
22	131 2 3101 16400	Metal Mount	1
		Screw, Pan Hd. Tapping 3x8	2
23	131 2 3603 12700	Metal Mount, Antenna	1
		Screw, Button Hd. Tapping 3x8	2
		Screw, Pan Hd. Tapping 3x8	8
		Nut, Hex. Hd. M3	2
		Screw, Countersunk 3x8	2
26	131 2 3305 15000	Panel, Front	1
		Screw, Button Hd. Tapping 3x8	8
27	131 2 4120 10500	Slide Rail, Pointer	1
		Screw, Pan Hd. Tapping 3x8	2
28	131 2 4108 10300	Spindle, Pulley	4
29	131 2 4107 10300	Pulley	4
30	131 2 4208 15400	Spacer	4
31	131 2 6103 12600	Cover, Shield	1
		Screw, Pan Hd. Tapping 3x8	2
32	131 2 3614 13800	Mount P.C.B. SQ Amp P.C.B.	1
		Screw, Pan Hd. Tapping 3x8	4

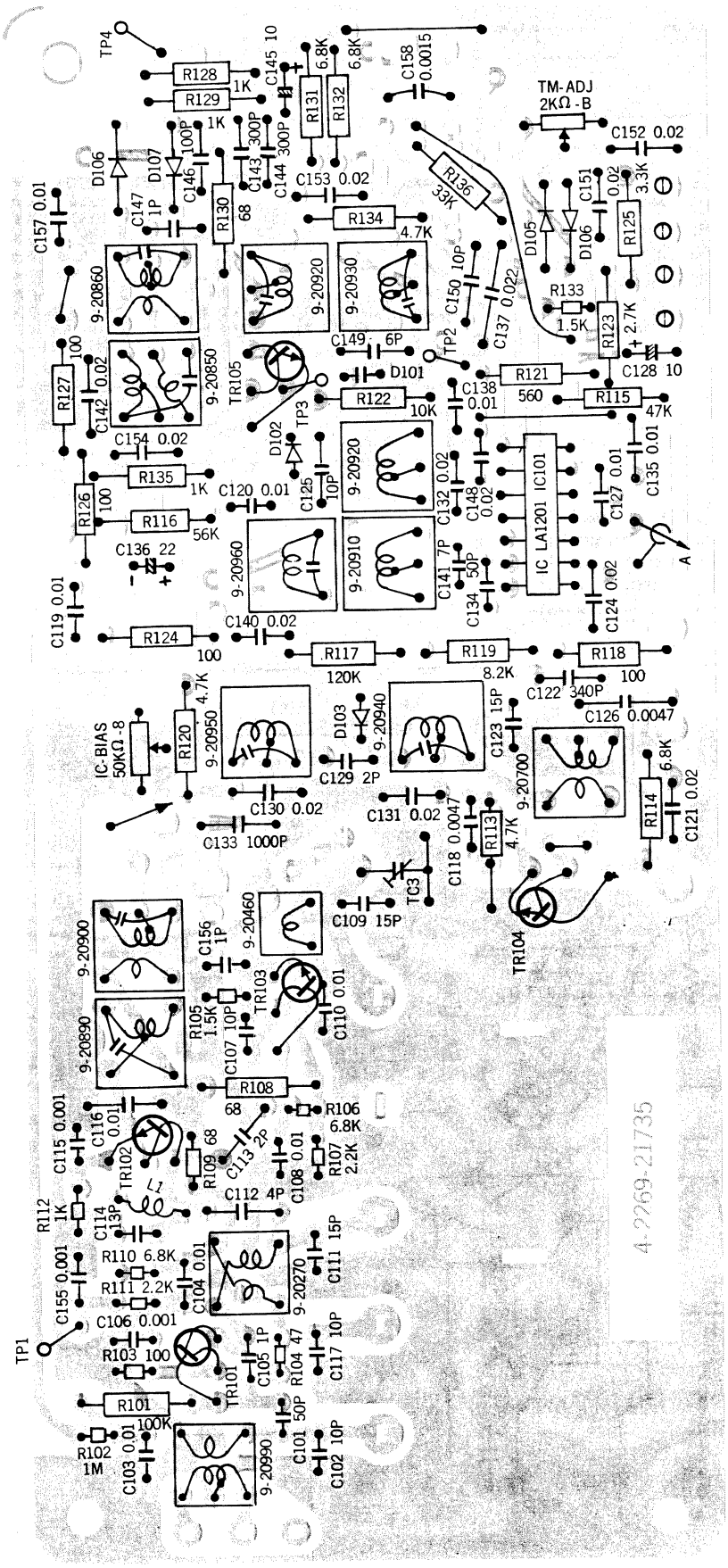
Ref. No.	Part No.	Description	Q'ty
CHASSIS MECHANICAL PARTS			
33	131 2 6101 14701	Plate, Shield, SQ P.C.B.	1
		Screw, Pan Hd. Tapping	2
34	131 0 3020 01200	Pulley Ass'y	1
		Screw, Button Hd. Tapping 3x8	1
35	131 0 3002 10201	Drum Ass'y	1
		Screw, Pan Hd. 3x8	2
36	131 2 4112 10200	Rope 0.5φ	1
37	131 2 4111 00200	Spring, Rope	1
	131 0 3011 12800	Pointer Ass'y (DCX-3300K)	1
38	131 0 3011 13700	Pointer Ass'y (DCX-3300KA)	1
39	131 2 6308 12400	Filter	1
40	131 2 1201 21300	Plate, Dial	1
41	131 2 1406 11200	Plate, Color	1
25	131 2 6111 11300	Bushing (HEIKO 3P-4), 2 wire Cord only	1
25	131 2 6111 11200	Bushing (Rubber), 3 Wire Cord only	1
	131 0 3016 10000	Cramp Wire Ass'y, Photex, England Type	1
		Screw, Pan Hd. Tapping 3x8	1
42	131 2 6110 17900	Shelter Light, Plate Dial	1
		Screw, Pan Hd. Tapping 3x8	3
43	131 2 6110 18000	Shelter Light, Plate Dial	2
		Screw, Pan Hd. Tapping 3x8	4
44	131 0 3003 14400	Shaft, Dial Ass'y	1
		Screw, Pan Hd. Tapping 3x8	2
45	131 2 6107 13900	Plate, Fiber, Pilot Holder	1
	131 2 6107 14800	Plate, Fiber, Power SW (4-1319-228630)	1
	131 2 6107 11800	Plate, Fiber, Power SW (4-1319-228610)	1
	131 2 6107 14200	Plate, Fiber, Power SW	1
46	131 2 6110 17600	Shelter Light, Dial	1
		Screw, Button Hd. Tapping 3x8	2
47	131 2 6110 17700	Shelter Light, Special Control	1
		Screw, Button Hd. Tapping 3x5	1
48	131 2 5206 11300	Moldplane, Special Tuning	5
49	131 2 6111 11600	Bushing, Function	5
		Screw, Pan Hd. Tapping 3x8, Plate Heat Sink	8
		Washer, Plain 4.2φx12φx1t Power Trans	4
50	131 2 4203 15300	Washer, Nylon, Power Trans	4
51	131 2 4203 15400	Washer, Nylon, Power Trans	4
		Nut, Hex Hd.	4
52	131 2 6111 11500	Bushing, Stereo Ind.	1
53	131 2 6113 11400	Shelter, Lever SW	4
54	131 2 6110 17800	Shelter Light, Tuning	1
		Screw, Button Hd. Tapping 3x8	1
55	131 2 3608 11300	Cramp Wire, Nylon	12
	131 0 3016 10401	Cramp Wire Ass'y, ANT Lead	1
		Screw, Pan Hd. Tapping 3x8	1
CHASSIS ELECTRICAL PARTS			
59	131 0 4001 35100	Printed Circuit Ass'y RF, IF	1
60	131 0 4001 18007	Printed Circuit Ass'y, MPX	1
61	131 0 4001 32300	Printed Circuit Ass'y, SQ	1
62	131 0 4001 31801	Printed Circuit Ass'y, Pre. Amp	1
63	131 0 4001 32001	Printed Circuit Ass'y, Meter	1
64	131 0 4001 35000	Printed Circuit Ass'y, Main AMP	2
65	131 0 4001 32101	Printed Circuit Ass'y, Pilot (Dial)	1
66	131 0 4001 32200	Printed Circuit Ass'y, Pilot (Meter)	1
67	131 0 4001 34900	Printed Circuit Ass'y, Equalizer	1
68	131 0 4001 34501	Printed Circuit Ass'y, Loudness	1
70	131 0 4001 34601	Printed Circuit Ass'y, Power Supply	1
	131 0 4001 38800	Printed Circuit Ass'y, Protector (Relay)	1
	131 0 4001 42500	Printed Circuit Ass'y, Protector (Elect)	1
	131 0 4001 38900	Printed Circuit Ass'y, Pre-2	1
71	4 2229 22990	Variable Resistor 200K ohm-B x 4 Master Volume	1
	4 2229 23180	Variable Resistor 1K ohm-B x 1 with SW Mic Volume (DCX-3300K)	1
72	4 2229 23181	Variable Resistor 1K ohm-B x 1 with SW Mic Volume (DCX-3300KA)	1
73	4 2239 20371	Electrolytic Cap. 2200μF/63WV	1
74	4 2319 22344	Switch Lever 12P, SP Select, Tape Monitor	2
	4 2319 22300	Switch Rotary 2-4-5, Fanction (DCX-3300K)	1
	4 2319 22620	Switch Rotary 3-6-5, 2CHL Select (DCX-3300K)	1

NOTES: 1. Part orders must contain Model Number, Part Number and Description.
2. Unless otherwise noted, component parts indicated by parentheses in the column Q'ty are not available.
3. Ordering quantity of screws and/or resistors must be multiple of 10 pcs.

PARTS LIST

Ref. No.	Part No.	Description	Q'ty
CHASSIS ELECTRICAL PARTS			
75	4 2319 22620	Switch Rotary 3-6-5, 2CHL Select, Function (DCX-3300KA)	2
76	4 2319 22631	Switch Lever 3P, Power SW	1
77	4 2349 20190	Fuse, 2A	1
78	4 2359 20160	Fuse Holder, Tuning Meter Lamp	1
79	4 2359 20190	Socket, DIN	1
80	4 2359 21110	Fuse Holder, AC	1
81	4 2359 21080	Jack, Headphone	2
82	4 2359 21100	Socket, AC Outlet	1
83	4 2359 21230	Socket, Phono 4P, Rec, Tape	2
84	4 2359 21250	Socket, Phono 6P, AUX PHONO	1
85	4 2359 21410	Jack, Mic	1
87	4 2379 20020	Terminal ANT 3P	1
89	4 2519 22761	Power Trans, 120/200/240V	1
90	4 2579 20524	Antenna Coil MW	1
91	4 5119 20291	Meter, VU	4
92	4 5119 20301	Meter, Tuning	1
93	4 6129 20310	Pilot Lamp, 6.3V, 140mA, Pointer	1
94	4 6129 20153	Pilot Lamp, Stereo Ind.	1
95	4 6129 20280	Pilot Lamp, Fuse Type, Tuning Meter	1
	4 2379 20250	Terminal Lug 1-1P	2
96	4 2379 20080	Terminal 4P, SP	2
97	4 2359 21220	Power Selector (Socket)	1
97	4 2369 20550	Power Selector (Plug)	1
		SELECT FOLLOWING PARTS ACCORDING YOUR LOCAL SUPPLY METHOD and VOLTAGE	
88	4 2439 20390	Power Cord, UL cord	1
	4 2369 20260	Plug Conversion, Siemens	1
	4 2369 20270	Plug Conversion, Continental	1
	4 2369 20280	Plug Photex, Australia 3P	1
	4 2369 20290	Plug 3P, England 3P	1
		RESISTORS	
R803		Carbon 820 ohm ±10% 1/4W	1
R807		Carbon 1K ohm ±10% 1/4W	1
R804		Carbon 1.5K ohm ±10% 1/4W	1
R801,802		Carbon 150K ohm ±10% 1/4W	2
R805,806		Carbon 1.8M ohm ±10% 1/2W	2
R813,814, 815,816		Oxide Metal 0.12 ohm ±10% 1/2W (DCX 3300KA)	4
R817		Oxide Metal 470 ohm ±10% 1W (DCX 3300KA)	1
		CAPACITORS	
C802		P.P. 0.01μF ±20% 630WV	1
RF.IF. P.C.B. ASSEMBLY			
	131-0-4001 35100	Printed Circuit Assy	1
	4 2269 21735	Printed circuit board	1
	4 2249 20410	Variable Capacitor	1
	4 2249 20310	Trimmer Capacitor, FM OSC	1
	4 2579 20990	Antenna Coil, FM	1
	4 2589 20460	OSC Coil FM	1
	4 2599 20270	RF Coil FM	1
	4 2569 20890	IFT, FM 1st (Violet)	1
	4 2569 20900	IFT, FM 1st (Yellow, Green)	1
	4 2569 20910	IFT, FM 2nd (Gray)	1
	4 2569 20920	IFT, FM 2nd, 3rd (Brown)	2
	4 2569 20930	IFT, FM 3rd (Green)	1
	4 2569 20850	IFT, FM Detector (Pink)	1
	4 2569 20860	IFT, FM Detector (Blue)	1
L1	4 2539 20130	RF Filter Choke	1
	4 2589 20700	OSC Coil, AM (Red)	1
	4 2569 20940	IFT, AM 1st (Yellow)	1
	4 2569 20950	IFT, AM 2nd (White)	1
	4 2569 20960	IFT, AM 3rd (Black)	1
	4 2229 21800	Variable Resistor 2K-B, Tuning Meter	1
	4 2229 21810	Variable Resistor 50K-B, IC Baias	1
		SEMI-CONDUCTORS	
IC101		IC LA 1201	1
TR102		Transistor 2SC668 D, E	1
TR103		Transistor 2SC668 D	1
TR104		Transistor 2SC929 D, E	1
TR105		Transistor 2SC930 D, E	1
D101,102 103,104 105,106 107		Diode 1S188FM	7
TR101		Transistor FET 2SK41 F	1

Ref. No. or Part No.	Description	Q'ty
RF. IF. P.C.B. ASSEMBLY		
	RESISTORS	
R108,130	Carbon 68 ohm ±10% 1/4W	2
R118,124 126,127	Carbon 100 ohm ±10% 1/4W	4
R121	Carbon 560 ohm ±10% 1/4W	1
R128,129 135	Carbon 1K ohm ±10% 1/4W	3
R123	Carbon 2.7K ohm ±10% 1/4W	1
R125	Carbon 3.3K ohm ±10% 1/4W	1
R120,134	Carbon 4.7K ohm ±10% 1/4W	2
R114,131 132	Carbon 6.8K ohm ±10% 1/4W	3
R119	Carbon 8.2K ohm ±10% 1/4W	1
R122	Carbon 10K ohm ±10% 1/4W	1
R115	Carbon 47K ohm ±10% 1/4W	1
R116	Carbon 56K ohm ±10% 1/4W	1
R101	Carbon 100K ohm ±10% 1/4W	1
R117	Carbon 120K ohm ±10% 1/4W	1
R136	Carbon 33 K ohm ±10% 1/4W	1
R104	Carbon 47 ohm ±10% 1/4W ELR	1
R109	Carbon 68 ohm ±10% 1/4W ELR	1
R103	Carbon 100 ohm ±10% 1/4W ELR	1
R112	Carbon 1K ohm ±10% 1/4W ELR	1
R105,133	Carbon 1.5K ohm ±10% 1/4W ELR	2
R107,111	Carbon 2.2K ohm ±10% 1/4W ELR	2
R113	Carbon 4.7K ohm ±10% 1/4W ELR	1
R106,110	Carbon 6.8K ohm ±10% 1/4W ELR	2
R102	Carbon 1M ohm ±10% 1/4W ELR	1
	CAPACITOR	
C147	Ceramic 1pF ±0.25pF 50WV NPO	1
C105 C156	Ceramic 1pF ±0.25pF 50WV	2
C129	Ceramic 2pF ±0.25pF 50WV	1
C112	Ceramic 4pF ±0.25pF 50WV	1
C149	Ceramic 6pF ±0.25pF 50WV	1
C102,117 125,150	Ceramic 10pF ±0.25pF 50WV	4
C107	Ceramic 10pF ±0.5pF 50WV	1
C141	Ceramic 7pF ±0.25pF 50WV	1
C114	Ceramic 13pF ±0.25pF 50WV	1
C109	Ceramic 15pF ±5% 50WV, N470	1
C111	Ceramic 15pF ±5% 50WV,	1
C123	Ceramic 15pF ±5%,50WV, N1500	1
C101,134	Ceramic 50pF ±10% 50WV	2
C146	Ceramic 100pF ±20% 50WV	1
C143,144	Ceramic 300pF ±20% 50WV	2
C122	Styrol 340pF ±5% 50WV	1
C106,115 155	Ceramic 0.001μF +80 −20% 50WV	3
C133	Styrol 0.001μF ±10% 50WV	1
C118,126	Mylar 0.0047μF ±20% 50WV	2
C108,135 138	Mylar 0.01μF ±20% 50WV	3
C110	Ceramic 0.01μF ±20% 50WV	1
C103,104 119,120 116,127,157 C121,124 130,131 132,140 142,148 151,152 153,154	Ceramic 0.01μF +80 −20% 50WV	7
C137	Ceramic 0.02μF +80 −20% 50WV	12
C128,145	Mylar 0.022μF ±20% 50WV	1
C136	Electrolytic 10μF +150 −10% 16WV	2
C113	Electrolytic 22μF +150 −10% 16WV	1
C158	Ceramic 2pF ±0.25pF 50WV	1
	Mylar 0.0015μF ±20% 50WV	1


TP4
R128 1K
R129 1K
C145 10
R131 6.8K
R132 6.8K
C158 0.0015
TM-ADJ 2KΩ-B
C152 0.02
D106
D107
C146 100P
C143 300P
C144 300P
C153 0.02
R136 33K
C151 0.02
R125 3.3K
C147 1P
R130 68
R134 4.7K
D105
D106
C157 0.01
9-20860
9-20920
9-20930
C150 10P
C137 0.022
R133 1.5K
R123 2.7K
C149 6P
TP2
C128 10
R127 100
C142 0.02
9-20850
TR105
D101
R121 560
R115 47K
TP3
R122 10K
C138 0.01
C154 0.02
D102
C125 10P
9-20920
C132 0.02
C148 0.02
IC LA1201 IC101
C127 0.01
C135 0.01
R135 1K
C120 0.01
R126 100
R116 56K
C136 22
9-20960
9-20910
C141 7P
C134 50P
C124 0.02
A
C119 0.01
R124 100
C140 0.02
R117 120K
R119 8.2K
R118 100
C122 340P
C126 0.0047
IC-BIAS 50KΩ-B
R120 4.7K
9-20950
D103
9-20940
C123 15P
C129 2P
9-20700
R114 6.8K
C121 0.02
C130 0.02
C131 0.02
C133 1000P
C118 0.0047
R113 4.7K
TC3
C109 15P
TR104
9-20900
C156 1P
9-20460
TR103
C110 0.01
9-20890
R105 1.5K
C107 10P
R108 68
R106 6.8K
C116 0.01
C115 0.001
TR102
R109 68
C113 2P
C108 0.01
R107 2.2K
R112 1K
C114 13P
C112 4P
R110 6.8K
R111 2.2K
C104 0.01
9-20270
C111 15P
C155 0.001
C106 0.001
TP1
R103 100
TR101
C105 1P
R104 47
C117 10P
R101 100K
C101 50P
C102 10P
R102 1M
C103 0.01
9-20990
4-226921735

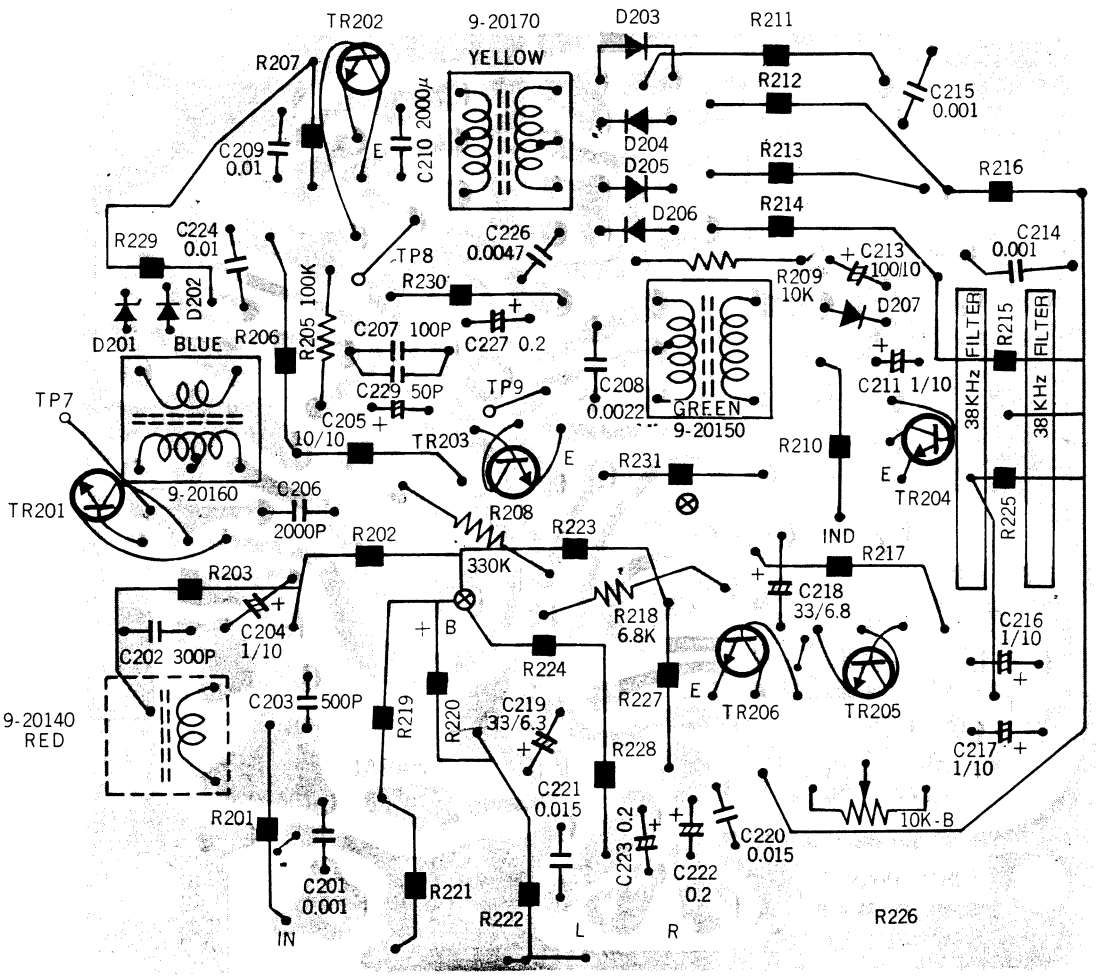
Part orders must contain Part No. and Description.

PARTS LIST

Ref. No. or Part No.	Description	Q'ty
MPX P.C.B. ASSEMBLY		
131 0 4001 18007	Printed circuit assy	1
4 2269 21801	Printed circuit board	1
4 2659 20140	Multiplex coil SCA (red)	1
4 2659 20150	Multiplex coil, 19K Hz (green)	1
4 2659 20160	Multiplex coil, 19K Hz (blue)	1
4 2659 20170	Multiplex coil, 38K Hz (yellow)	1
4 2229 21270	VR B-10K ohm, Separation control	1
4 2279 20140	Rescap, 38K Hz Trap	2
111 2 6220 11100	Wire Wrap terminal	2
TR201,202 205,206, TR204,203	Transistor 2SC537	4
	Transistor 2SC537 E	2
D201,202,203,204 205,206	Diode 1S188 FM1	6
D207	Diode DS-430	1
	RESISTORS	
R218	Carbon P-type 6.8K ohm ±10% 1/4W	1
R209	Carbon P-type 10K ohm ±10% 1/4W	1
R205	Carbon P-type 100K ohm ±10% 1/4W	1
R208	Carbon P-type 330K ohm ±10% 1/4W	1

Ref. No. or Part No.	Description	Q'ty
MPX P.C.B. ASSEMBLY		
	CAPACITORS	
C202	Styrol 300PF ±10% 35WV	1
C203	Styrol 500PF ±10% 35WV	1
C206,210	Styrol 2000PF ±10% 35WV	2
C214,215,201	Mylar 0.001μF ±20% 50WV	3
C209,224,	Mylar 0.01μF ±20% 50WV	2
C220,221	Mylar 0.015μF ±20% 50WV	2
C208	Mylar 0.0022μF ±20% 50WV	1
C207	Ceramic 100pF ±10% 50WV	1
C204,216,217,211	Electrolytic 1μF + 150 ~ −0% 10WV	4
C205	Electrolytic 10μF + 150 ~ −0% 10WV	1
C218,219	Electrolytic 33μF + 150 ~ −0% 6.3WV	2
C213	Electrolytic 100μF + 150 ~ −0% 10WV	1
C222,223,227	Alsicon 0.2μF +40 ~ −20% 10WV	3
C226	Mylar 0.0047μF ±20% 50WV	1

MPX. P.C.B. ASSEMBLY



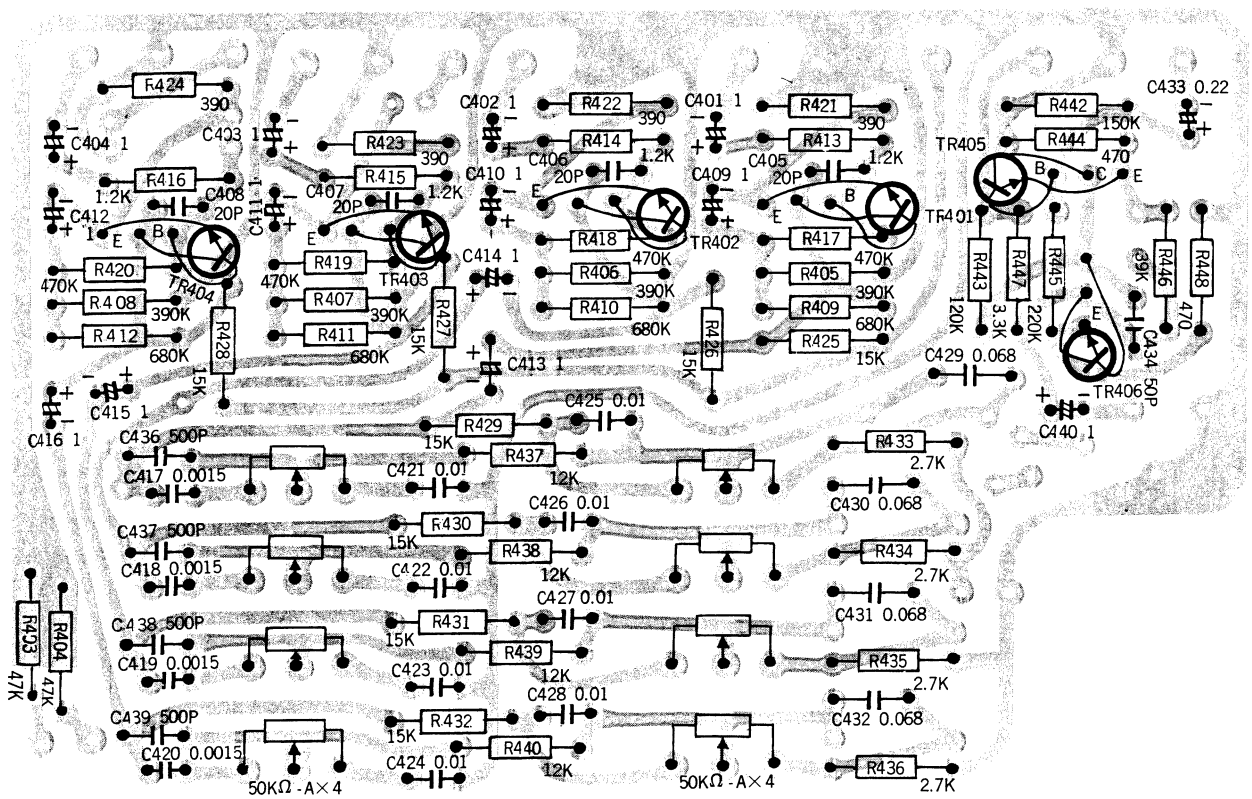
Part orders must contain Part No. and Description.

PARTS LIST

Ref. No. or Part No.	Description	Q'ty
PRE AMP. P.C.B. ASSEMBLY		
131 0 4001 31801	Printed Circuit Assy	1
4 2269 23830	Printed Circuit Board	1
4 2229 23000	V.R. 50K-Ax4, BASS, TREBLE	2
111 2 6220 11100	Wire Wrap Terminal	14
	SEMI-CONDUCTORS	
TR401,402 403,404 406	Transistor 2SC693 F,G	5
TR405	Transistor 2SC693 Fα, Fu, Gα, Gu	1
	RESISTORS	
R421,422 423,424	Carbon 390 ohm ±10% 1/4W	4
R444,448	Carbon 470 ohm ±10% 1/4W	2
R413,414 415,416	Carbon 1.2K ohm ±10% 1/4W	4
R433,434 435,436	Carbon 2.7K ohm ±10% 1/4W	4
R447	Carbon 3.3K ohm ±10% 1/4W	1
R437,438 439,440	Carbon 12K ohm ±10% 1/4W	4
R425,426 427,428 429,430 431,432	Carbon 15K ohm ±10% 1/4W	8
R446	Carbon 39K ohm ±10% 1/4W	1
R403,404	Carbon 47K ohm ±10% 1/4W	2
R443	Carbon 120K ohm ±10% 1/4W	1
R442	Carbon 150K ohm ±10% 1/4W	1

Ref.No. or Part No.	Description	Q'ty
PRE AMP. P.C.B. ASSEMBLY		
R445	Carbon 220K ohm ±10% 1/4W	1
R405,406 407,408	Carbon 390K ohm ±10% 1/4W	4
R417,418 419,420	Carbon 470K ohm ±10% 1/4W	4
R409,410 411,412	Carbon 680K ohm ±10% 1/4W	4
	CAPACITORS	
C405,406 407,408	Ceramic 20pF ±10% 50WV	4
C434	Ceramic 50pF ±10% 50W	1
C436,437 438,439	Ceramic 500pF ±10% 50WV	4
C417,418 419,420	Mylar 0.0015μF ±20% 50WV	4
C421,422 423,424 425,426 427,428	Mylar 0.01μF ±20% 50WV	8
C429,430 431,432	Mylar 0.068μF ±20% 50WV	4
C433	Al.Si. 0.22μF +150–10% 10WV	1
C401,402 403,404 413,414 415,416 440	Al.Si. 1μF +150–10% 25WV	9
C409,410 411,412	Electrolytic 1μF +150–10% 10WV	4

PRE AMP. P.C.B. ASSEMBLY.



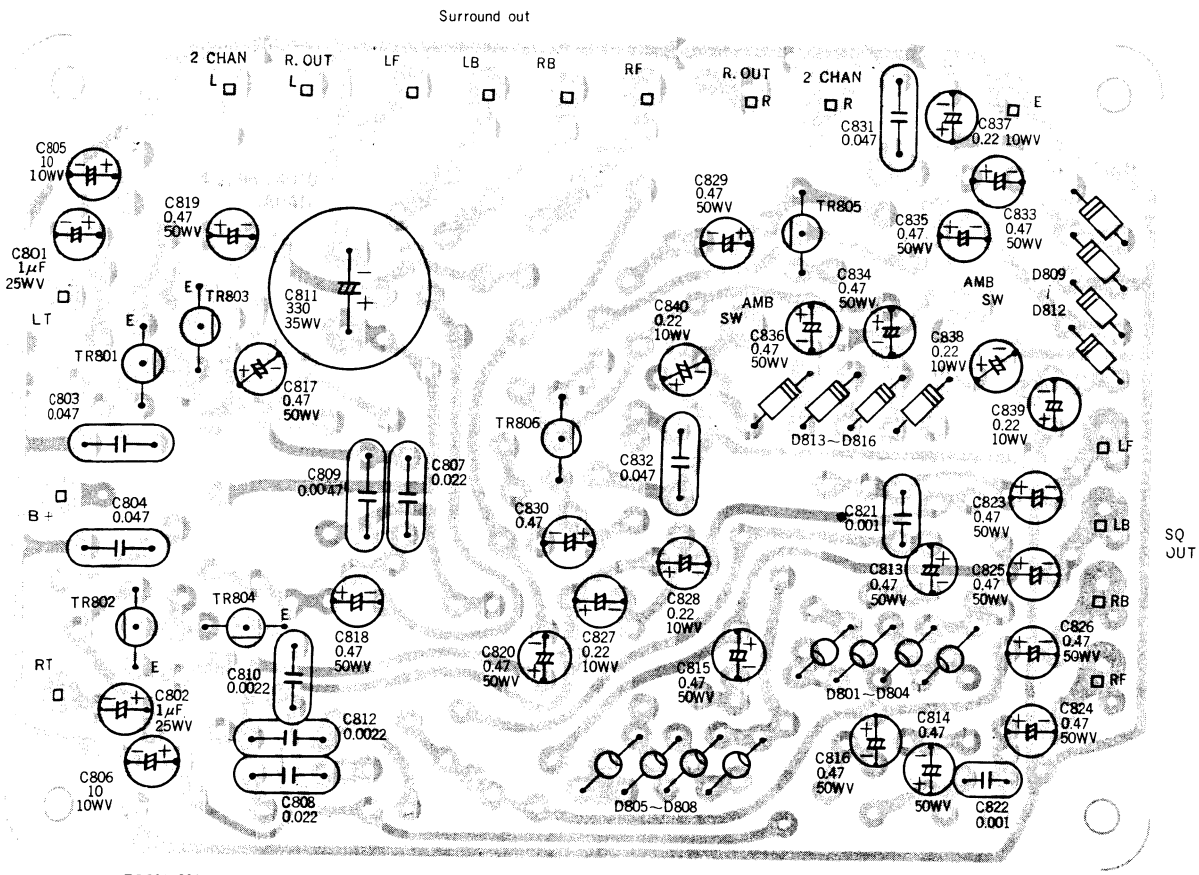
PARTS LIST

Part orders must contain Part No. and Description.

Ref. No. or Part No.	Description	Q'ty
MATRIX P.B.C. ASSEMBLY		
131 0 4001 32300	Printed Circuit Assy	1
4 2269 24010	Printed Circuit Board	1
111 2 6220 11100	Wire Wrap Terminal	18
	SEMI-CONDUCTORS	
TR801,802	Transistor 2SC693 FL, GL	2
TR803,804	Transistor 2SA608 D,E,F	2
TR805,806	Transistor 2SC537 E, F	2
D801,802		
803,804		
805,806		
807,808	Diode DS-430	8
D809,810		
811,812		
813,814		
815,816	Diode 1S188	8
	CAPACITORS	
C805,806	Electrolytic 10μF +150 −10% 10WV	2
C811	Electrolytic 330μF +150−10% 35WV	1

Ref. No. or Part No.	Description	
MATRIX P.C.B. ASSEMBLY		
C827,828		
837,838		
839,840	AL.SI. 0.22μF ±20% 10WV	6
C813,814		
815,816		
817,818		
819,820		
823,824		
825,826		
829,830		
833,834		
835,836	AL.SI. 0.47μF +150−10% 50WV	18
C821,822	Mylar 0.001μF ±20% 50WV	2
C810,812	Mylar 0.0022μF ±20% 50WV	2
C809	Mylar 0.0047μF ±20% 50WV	1
C807,808	Mylar 0.022μF ±20% 50WV	2
C803,804		
831,832	Mylar 0.047μF ±20% 50WV	4
C801,802	Electrolytic 1μF ±20% 25WV	2

MATRIX P.C.B. ASSEMBLY



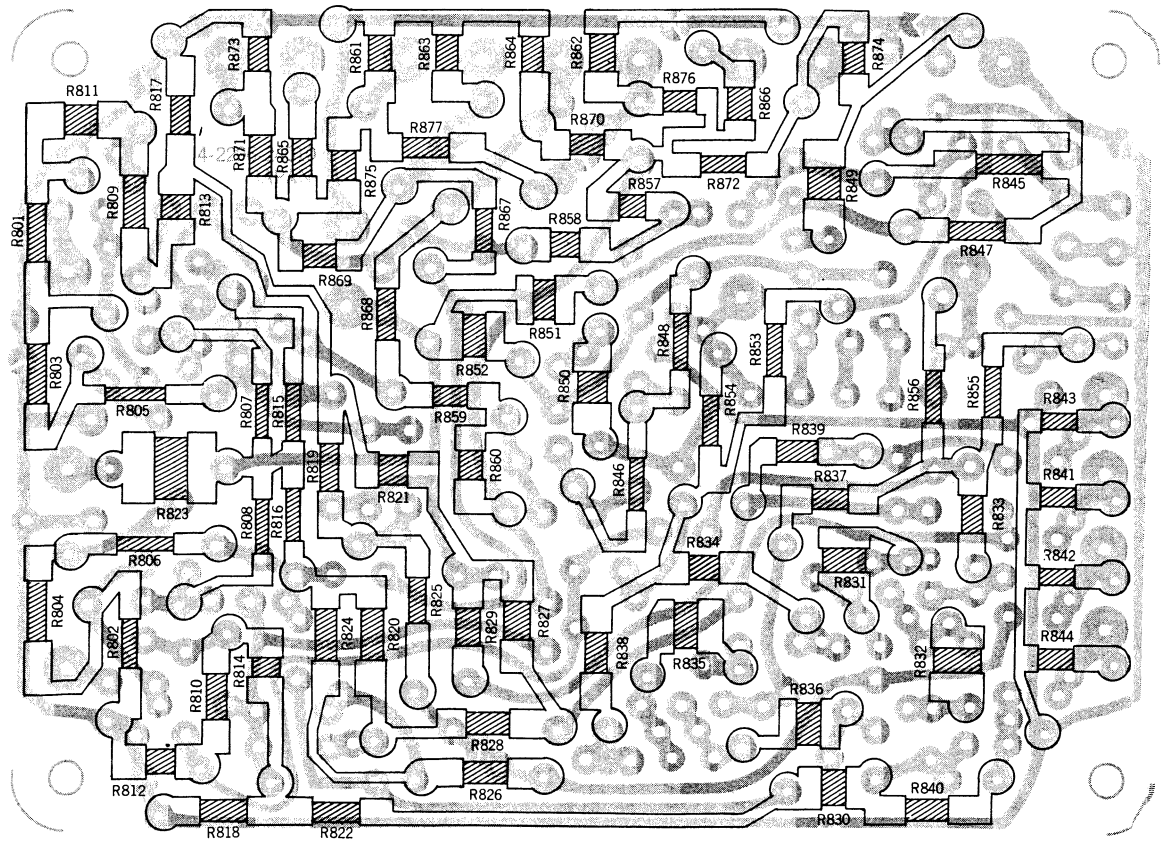
TR801, 802 2SC693 (FL) TR803, 804 2SA608 (D. E. F) TR805, 806 2SC537 (E. F)
D801~808 DS-430 D809~D816 1S188 FM1

MATRIX P.C.B. ASSEMBLY

MATRIX P.C.B. PRINTED RESISTORS VALUE

R801	330K	±20%	1/32W	R821	10K	±10%	1/32W	R840	22K	±15%	1/32W	R859	100K	±10%	1/32W
R802	330K	±20%	1/32W	R822	22K	±10%	1/32W	R841	120K	±15%	1/32W	R860	100K	±10%	1/32W
R803	330K	±20%	1/32W	R823	220K	±20%	1/16W	R842	120K	±15%	1/32W	R861	120K	±15%	1/32W
R804	330K	±20%	1/32W	R824	22K	±10%	1/32W	R843	120K	±15%	1/32W	R862	120K	±15%	1/32W
R805	330K	±20%	1/32W	R825	120K	±10%	1/32W	R844	120K	±15%	1/32W	R863	120K	±15%	1/32W
R806	330K	±20%	1/32W	R826	100K	±10%	1/32W	R845	330K	±20%	1/32W	R864	120K	±15%	1/32W
R807	220K	±20%	1/32W	R827	100K	±10%	1/32W	R846	330K	±20%	1/32W	R865	18K	±15%	1/32W
R808	220K	±20%	1/32W	R828	120K	±10%	1/32W	R847	220K	±20%	1/32W	R866	18K	±15%	1/32W
R809	2.2K	±10%	1/32W	R829	56K	±15%	1/32W	R848	220K	±20%	1/32W	R867	180K	±10%	1/32W
R810	2.2K	±10%	1/32W	R830	56K	±10%	1/32W	R849	470	±10%	1/32W	R868	180K	±10%	1/32W
R811	10K	±20%	1/32W	R831	4.7K	±20%	1/32W	R850	470	±10%	1/32W	R869	82K	±10%	1/32W
R812	10K	±20%	1/32W	R832	4.7K	±20%	1/32W	R851	4.7K	±10%	1/32W	R870	82K	±10%	1/32W
R813	6.8K	±10%	1/32W	R833	100K	±20%	1/32W	R852	4.7K	±10%	1/32W	R871	120K	±15%	1/32W
R814	6.8K	±10%	1/32W	R834	100K	±20%	1/32W	R853	27K	±10%	1/32W	R872	120K	±15%	1/32W
R815	1.8K	±10%	1/32W	R835	4.7K	±20%	1/32W	R854	27K	±10%	1/32W	R873	120K	±15%	1/32W
R816	1.8K	±10%	1/32W	R836	4.7K	±20%	1/32W	R855	27K	±10%	1/32W	R874	120K	±15%	1/32W
R817	2.2K	±10%	1/32W	R837	100K	±20%	1/32W	R856	27K	±10%	1/32W	R875	68K	±10%	1/32W
R818	2.2K	±10%	1/32W	R838	100K	±20%	1/32W	R857	100K	±10%	1/32W	R876	68K	±10%	1/32W
R819	22K	±10%	1/32W	R839	22K	±15%	1/32W	R858	100K	±10%	1/32W	R877	47K	±10%	1/32W
R820	22K	±10%	1/32W												

PRINTED RESISTERS LAYOUT



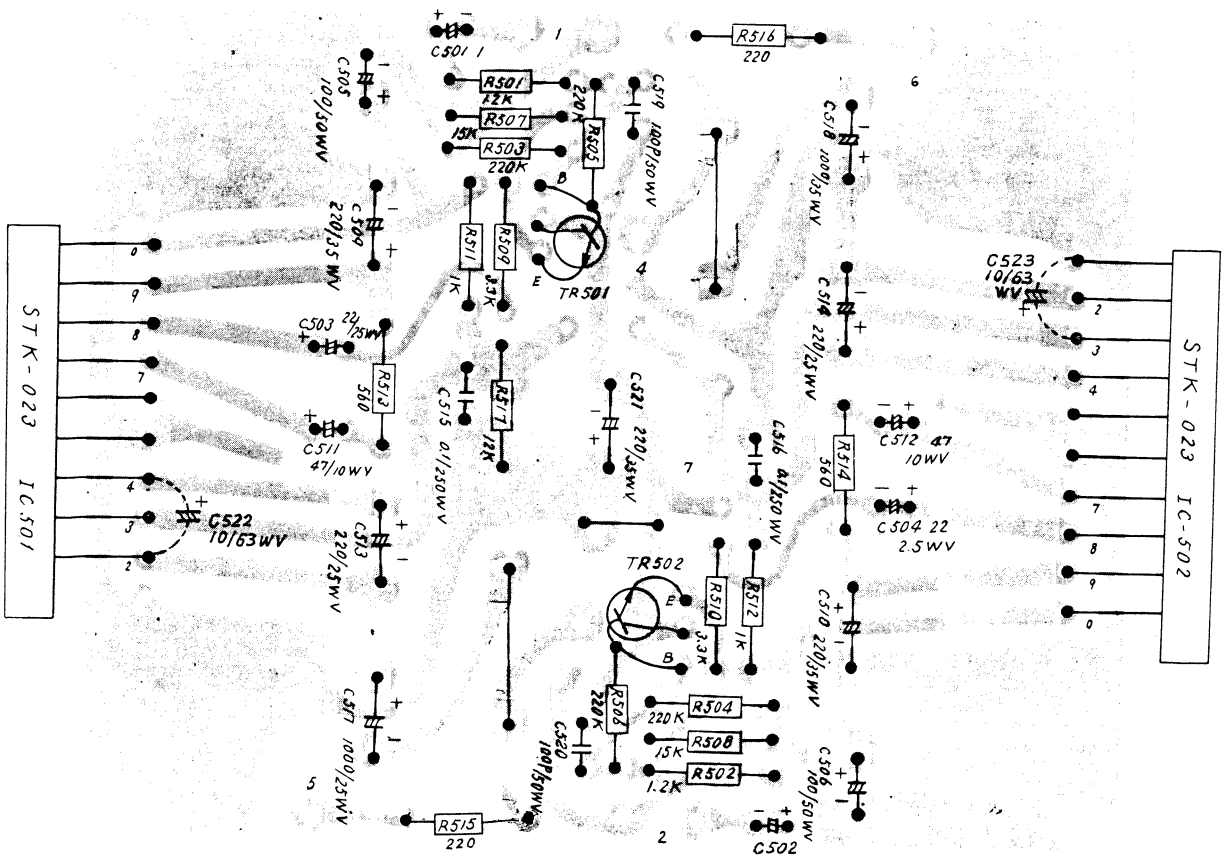
PARTS LIST

Part orders must contain Part No. and Description.

Ref. No. or Part No.	Description		Q'ty
MAIN AMP. P.C.B. ASSEMBLY			
131 0 4001 35000	Printed circuit Assy		1
4 2269 24190	Printed Circuit Board		1
111 2 6220 11100	Wire Wrap Terminal		9
131 2 6201 18500	Plate-Heat Sink, Power Transistor		2
4 2359 20930	Fuse Holder		4
4 2349 20030	Fuse 2A		2
	Pan Hd. Tapping Screw 3 x 14		4
	Pan Hd. Screw 3 x 8		4
	Hexagon Nut M3		4
	SEMI-CONDUCTORS		
IC501,502	STK-023 G		2
TR501,502	2SC693 FL, GL		2
	RESISTORS		
R515,516	Carbon 220	±10% 1/4W	2
R513,514	Carbon 560	±10% 1/4W	2
R511,512	Carbon 1K	±10% 1/4W	2
R501,502	Carbon 1.2K	±10% 1/4W	2
R509,510	Carbon 3.3K	±10% 1/4W	2
R507,508	Carbon 15K	±10% 1/4W	2
R503,504 505,506	Carbon 220K	±10% 1/4W	4
R517	Carbon 12KΩ	±10% 1/4W	1

Ref. No. or Part No.	Description	Q'ty
MAIN AMP. P.C.B. ASSEMBLY		
	CAPACITORS	
C503,504	Electrolytic 22μF +150 −10% 25WV	2
C511,512	Electrolytic 47μF +150 −10% 10WV	2
C505,506	Electrolytic 100μF +150 −10% 50WV	2
C513,514	Electrolytic 220μF +150 −10% 25WV	2
C509,510 521	Electrolytic 220μF +150 −10% 35WV	3
C517,518	Electrolytic 1000μF +150 −10% 35WV	2
C519,520	Ceramic 100pF ±10% 50WV	2
C515,516	Ceramic 0.1μF +100 −0% 250WV	2
C501,502	Al.Si. 1μF ±20% 25WV	2
C522,523	Electrolytic 10μF +150 -10% 63WV	2

MAIN AMP. P.C.B. ASSEMBLY



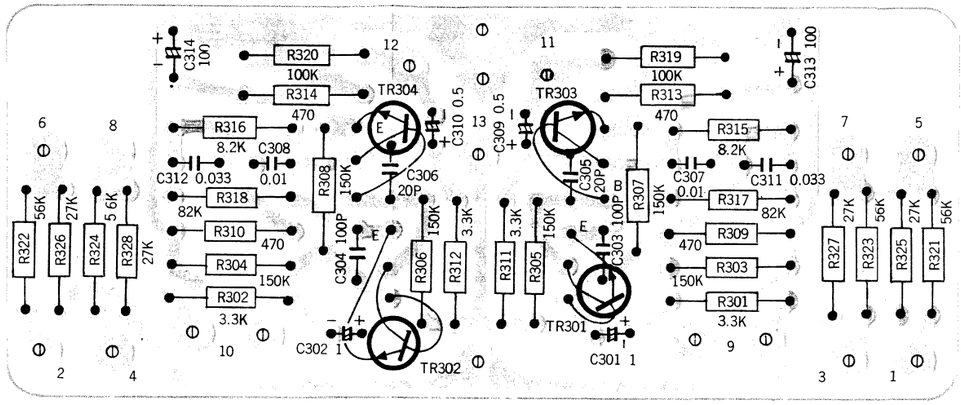
PARTS LIST

Part orders must contain Part No. and Description.

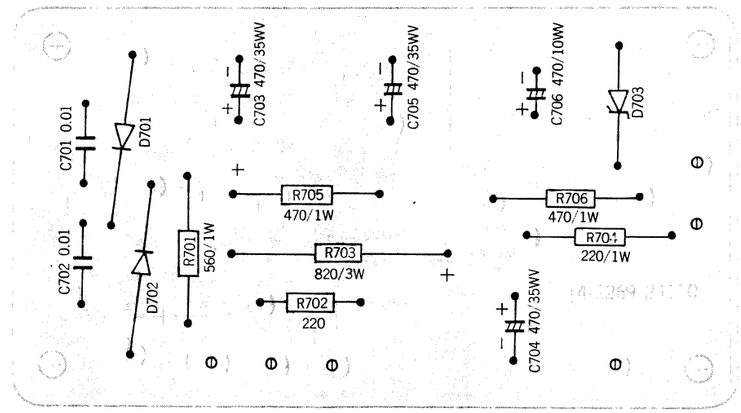
Ref. No. or Part No.	Description	Q'ty
EQUALIZER AMP. P.C.B. ASSEMBLY		
131 0 4001 34900	Printed Circuit Assy	1
111 2 6220 11100	Wire wrap Terminal	18
4 2269 24200	Printed Circuit Board	1
	SEMI-CONDUCTOR	
TR301,302	Transistor 2SC693 FL, GL	2
TR303,304	Transistor 2SC693 F, G	2
	RESISTORS	
R309,310	Carbon 470 ohm ±10% 1/4W	4
313,314		
R301,302	Carbon 3.3K ohm ±10% 1/4W	4
311,312		
R315,316	Carbon 8.2K ohm ±10% 1/4W	2
R317,318	Carbon 82K ohm ±10% 1/4W	2
R319,320	Carbon 100K ohm ±10% 1/4W	2
R303,304	Carbon 150K ohm ±10% 1/4W	6
305,306		
307,308		
R325,326	Carbon 27K ohm ±10% 1/4W	4
327,328		
R321,323	Carbon 56K ohm ±10% 1/4W	4
324,322		
	CAPACITORS	
C305,306	Ceramic 20pF ±10% 50WV	2
C303,304	Ceramic 100pF ±10% 50WV	2
C307,308	Mylar 0.01μF ±20% 50WV	2
C311,312	Mylar 0.033μF ±20% 50WV	2
C309,310	Al. Si. 0.5μF ±20% 25WV	2
C301,302	Al. Si. 1μF ±20% 25WV	2
C313,314	Electrolytic 100μF +150–10% 10WV	2
POWER SUPPLY P.C.B. ASSEMBLY		
131 0 4001 34601	Printed Circuit Assy	1
4 2269 24110	Printed Circuit Board	1
111 2 0229 11100	Wire Wrap Terminal	6
	SEMI-CONDUCTORS	
D701,702	Diode DS-118	2
D703	Zener Diode SZ-9	1
	CAPACITORS	
C703,704	Electrolytic 470μF +150–10% 35WV	3
705		
C706	Electrolytic 470μF +150–10% 10WV	1
C701,702	Ceramic 0.01μF +80–20% 250W 250WV	2
	RESISTOR	
R702	Carbon 220 ohm 10% 1/4W	1
R704	Metal Film 220 ohm ±10% 1W	1
R705,706	Metal Film 470 ohm ±10% 1W	2
R701	Metal Film 560 ohm ±10% 1W	1
R703	Metal Film 820 ohm ±10% 3W	1
METER P.C.B. ASSEMBLY		
131 0 4001 32001	Printed Circuit Assy	1
4 2269 23850	Printed Circuit Board	1
4 2229 22711	V.R. 100K-CxI, Spatial Control	4
2 6220 11100	Wire Wrap Terminal	20
	SEMI-CONDUCTORS	
D601,602	1S188	4
603,604		
D605,606	DS430	4
607,608		

Ref. No. or Part No.	Description	Q'ty
METER P.C.B. ASSEMBLY		
	RESISTORS	
R605,606	Carbon 1K ohm ±10% 1/4W	4
607,608		
R613,614		
615,616	Carbon 1.2 K ohm ±10% 1/4W	4
R609,610	Carbon 15K ohm ±10% 1/4W	4
611,612		
	CAPACITORS	
C601,602	Electrolytic 1μF +150 –10% 50W	4
603,604		
PILOT (METER) P.C.B. ASSEMBLY		
131 0 4001 32200	Printed Circuit Assy	1
4 2269 23990	Printed Circuit Board	1
4 2359 20930	Fuse Holder	8
4 6129 20280	Pilot Lamp	4
PILOT (DIAL) P.C.B. ASSEMBLY		
131 0 4001 32101	Printed Circuit Assy	1
4 2269 23870	Printed Circuit Board	1
4 2359 20930	Fuse Holder	8
4 6129 20280	Pilot Lamp	4
111 2 6220 11100	Wire Wrap Terminal	10
4 6129 20300	Pilot Lamp (N)	2
4 6129 20301	Pilot Lamp (O)	1
4 6129 20302	Pilot Lamp (Y)	2
R801	Carbon 10 ohm ±10% 1/4W	1
LOUDNESS P.C.B. ASSEMBLY		
131 0 4001 34501	Printed Circuit Assy	1
4 2269 24430	Printed Circuit Board	1
4 2319 22333	Switch Lever 6P, LOUDNESS	1
111 2 6220 11100	Wire Wrap Terminal	5
R901,902	Carbon 39K ohm ±10% 1/4W	2
C903,904	Ceramic 390pF ±10% 50WV	2
C901,902	Mylar 0.01μF ±20% 50WV	2

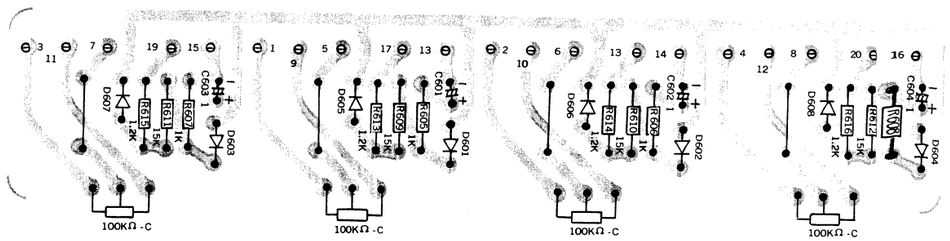
PRE-2 P.C.B. ASSEMBLY PARTS (DCX 3300KA)		
131 0 4001 38900	Printed Circuit Assembly	1
4 2269 24810	Printed Circuit Assembly	1
	SEMICONDUCTORS	
TR1101,TR1102	Transistor 2SC693	4
TR1103,TR1104		
	RESISTORS	
R1101,R1102,	Carbon 150 K ±10% 1/4W	8
R1103,R1104,		
R1105,R1106,		
R1107,R1108		
R1109,R1110,	Carbon 10 K ±10% 1/4W	4
R1111,R1112		
R1113,R1114,	Carbon 330 K ±10% 1/4W	4
R1115,R1116		
	CAPACITORS	
C1101,C1102,	Aluminium 1μF +150 – 10 % 25WV	8
C1103,C1104,		
C1105,C1106,		
C1107,C1108		
C1109,C1110,	Ceramic 30pF ±10% 50WV	4
C1111,C1112		
C1113	Electrolytic 100μF 25WV	1



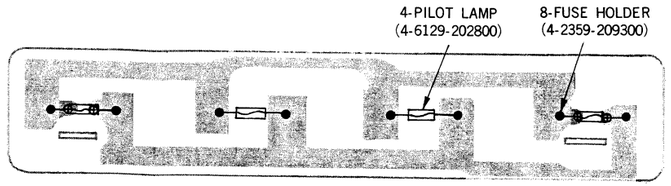
EQUALIZER AMP. P.C.B. ASSEMBLY



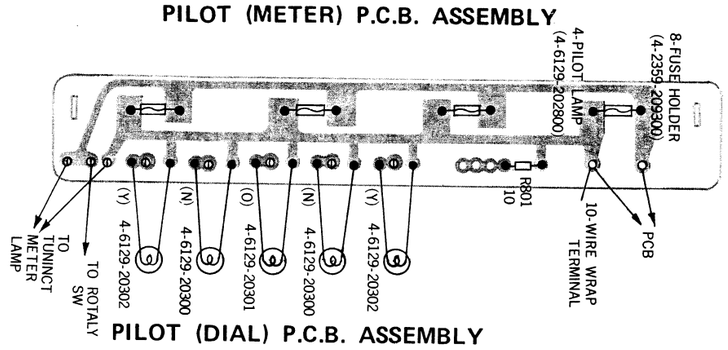
POWER SUPPLY P.C.B. ASSEMBLY



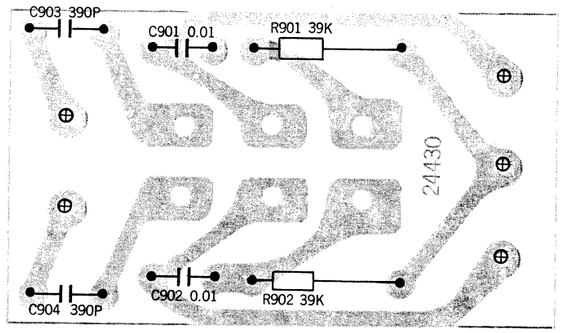
METER P.C.B. ASSEMBLY



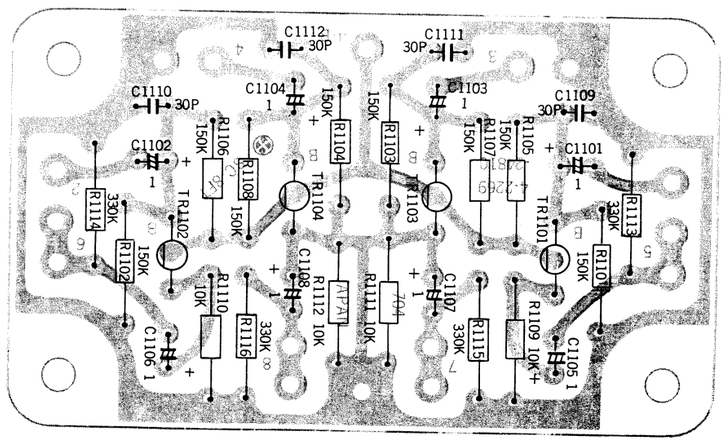
PILOT (METER) P.C.B. ASSEMBLY



PILOT (DIAL) P.C.B. ASSEMBLY



LOUDNESS P.C.B. ASSEMBLY



TR1101~TR1104 2SC693 FU

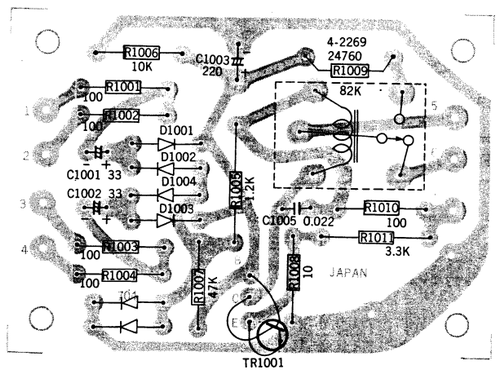
PRE-2 P.C.B. ASSEMBLY

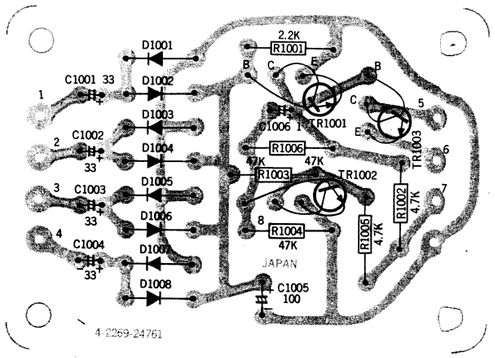
PARTS LIST

Ref. No. or Part No.	Description	Q'ty
PROTECTOR P.C.B. ASSEMBLY (RELAY)		
131 0 4001 38800	Printed Circuit Assembly	1
4 2269 24760	Printed Circuit Boad	1
4 2329 20050	Relay DC24V, 19mA 1260Ω	1
	SEMI CONDUCTOR	
TR1001	Transistor 2SC536	1
D1005,D1006	Diode DS430	2
D1001,D1002, D1003,D1004	Diode 1S188	4
	RESISTORS	
R1008	Carbon 10Ω ±10% 1/4W	1
R1001,R1002, R1003,R1004	Carbon 100Ω ±10% 1/4W	5
R1010		
R1006	Carbon 10KΩ ±10% 1/4W	1
R1007	Carbon 47KΩ ±10% 1/4W	1
R1009	Carbon 82KΩ ±10% 1/4W	1
R1005	Metal Film 1.2KΩ ±10% 1/4W	1
R1011	Carbon 3.3KΩ ±10% 1/2W	1
	CAPACITORS	
C1001,C1002	Electrolytic 33μF +150% - 10% 10WV	2
C1003	Electrolytic 220μF +150% - 10% 10WV	1
C1005	Mylar 0.022μF ±20% 50WV	1

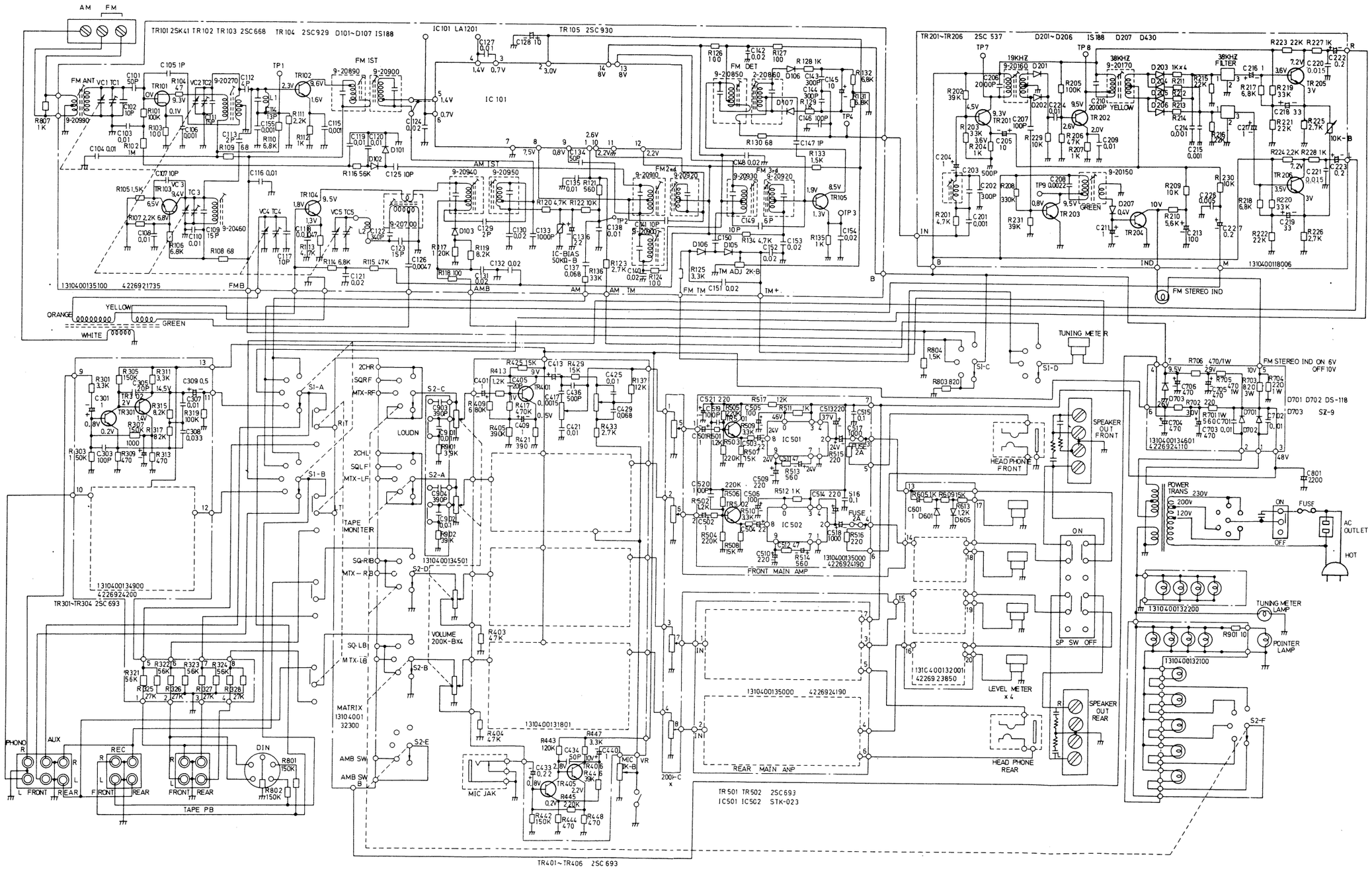
Ref. No. or Part No.	Description	Q'ty
PROTECTOR P.C.B. ASSY (ELECTRONIC)		
131 0 4001 42500	Protector PCB Assembly	1
4 2269 24761	Printed Circuit Board	(1)
	SEMI-CONDUCTORS	
TR1001,1002	Transistor 2SC536F	2
TR1003	Transistor 2SC536G	1
D1001-1008	Diode 1S188	8
	RESISTORS	
R1003,1004, 1006	Carbon 47K ohm 10% 1/4W	3
R1001	Carbon 2.2K ohm 10% 1/4W	1
R1002,1005	Carbon 4.7K ohm 10% 1/4W	2
	CAPACITORS	
C1001-1004	Electrolytic 33μF 10V	4
C1005	Electrolytic 100μF 16V	1
C1006	Electrolytic 1 μF 25V	1

PROTECTOR (RELAY) P.C.B. ASSEMBLY ——— PROTECTOR (ELECTRIC) P.C.B. ASSEMBLY

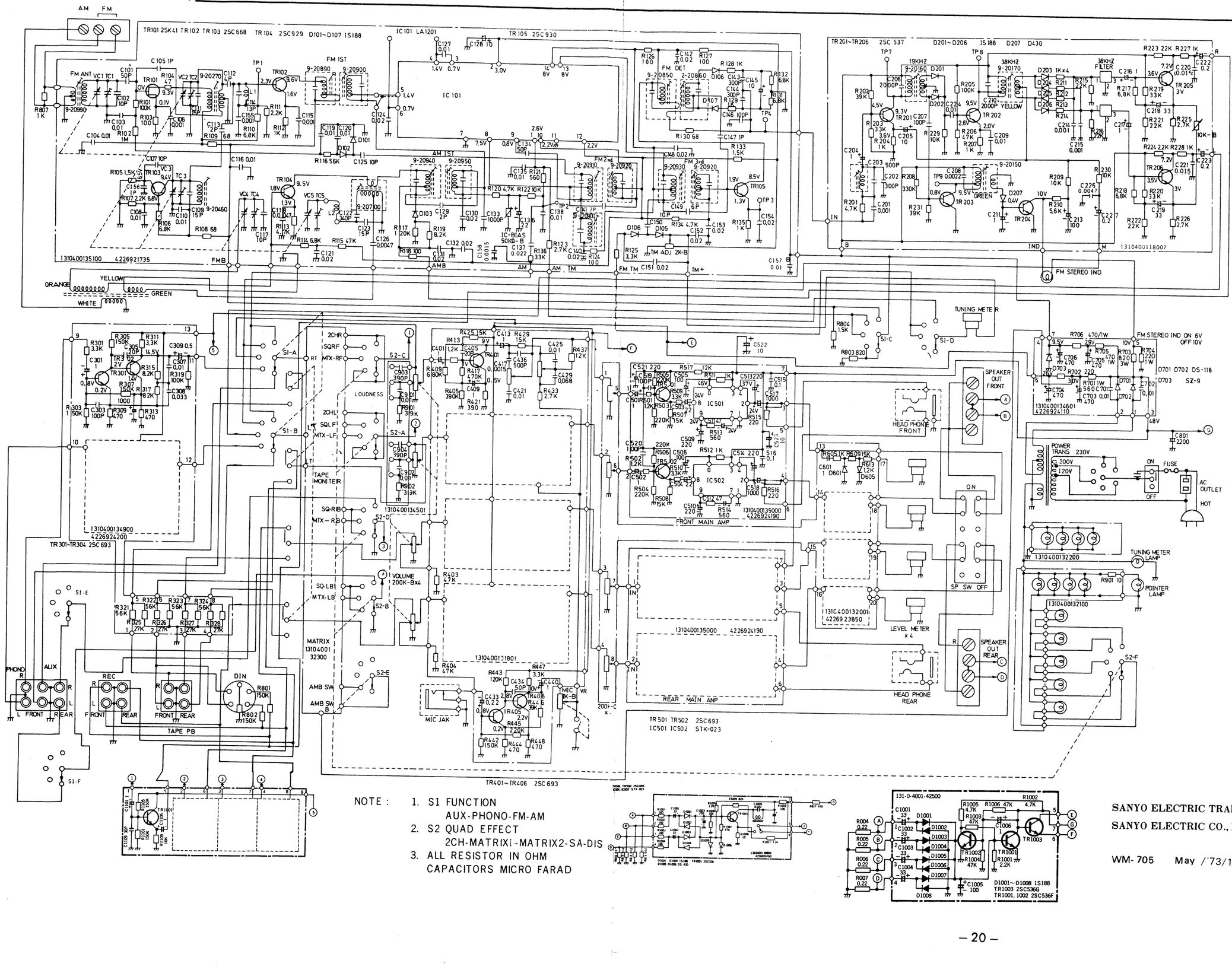




SCHEMATIC DIAGRAM (DCX 3300K)



SCHEMATIC DIAGRAM (DCX 3300KA)



NOTE :

1. S1 FUNCTION
   AUX-PHONO-FM-AM
2. S2 QUAD EFFECT
   2CH-MATRIX1-MATRIX2-SA-DIS
3. ALL RESISTOR IN OHM
   CAPACITORS MICRO FARAD

SANYO ELECTRIC TRADING CO., LTD.
SANYO ELECTRIC CO., LTD. OSAKA, JAPAN.

WM-705 May /'73/1500 Printed in Japan